EDI?

A. That is correct. And the basis for that was the company's expectation that the historical patterns of volume through its OSS were going to change as more and more companies adopted EDI as a processing mode.

MR. HOPKINS: I'd like to -- I don't know if I did it. Could I move in Exhibit No. 59, or is that in already?

CHAIRMAN GREER: If you didn't, it is now.

MR. HOPKINS: Thank you.

(Exhibit 59 marked.)

BY MR. HOPKINS:

Q. Is it true on page 18 of the IBM report that IBM concluded that this should be a peak-hour test?

A. It seems to say that, yes.

Q. Is it true that BellSouth did not conduct a peak-hour test?

A. Not in the volume test that's included in our report, no. They have subsequently performed that sort of a test and included peak-hour volumes in those tests.

Q. But that's not part of your attestation, is

it?

A. No, it's not.

MR. HOPKINS: I have two more exhibits, which should be the last two.

And one is -- at the top is -- I'd like to mark it as Exhibit No. 60. And it --

MR. ROSS: Which one is that?

MR. HOPKINS: And that's "LENS Volume Test Requirements."

And then Exhibit No. 61 is marked "LENS Performance Benchmark and Results."

And these were provided in part of the work -- Ernst & Young work papers.

CHAIRMAN GREER: Without objection, so ordered.

MR. HOPKINS: Thank you.

(Exhibits 60 and 61 marked.)

BY MR. HOPKINS:

Q. Do these look familiar to you, Mr. Putnam?

A. Yes, they do.

Q. Now, on the item number -- Exhibit No. 60, the LENS Volume Test Requirements, on the -- if you go down to row 17, for the May '98 forecast, number of orders, busy hour LENS, it says 328. Does that exceed the hourly volume that was tested -- that you attested

to for LENS?

A. Well, let me check. (Pause)

No, the LENS volume would not exceed that number, the volume that was tested.

Q. Didn't you attest to 100 LENS orders over 20 hours, for a total of 2000 LENS orders?

A. There are 3000 LENS orders over the 20-hour period.

Q. So did you do 300?

A. That would be 150.

Q. Or 150 orders per hour?

A. That is correct.

Interestingly, in the more recent volume tests, there were volumes of 8000 LENS orders that were put across. And for one eight-hour -- one one-hour period, there were 800 orders put across.

Q. But that's not part of your attestation here in this record; is that correct?

A. That is correct.

Q. Now, on page 15 and 18 of the IBM report, they discuss using a 10-hour workday for the capacity testing at 500 orders per hour; is that correct?

A. I'm sorry. What page is that?

Q. It's on pages 5 -- 15 -- I'm sorry -- it talks about two 10-hour workdays. And I believe on

page 18 it talks about a -- oh, I'm sorry. I guess that's --

MR. HOPKINS: Let's skip that line of questioning.

BY MR. HOPKINS:

Q. Mr. Putnam, is it correct that you did not attest to the reasonableness of BellSouth's projected capacity volumes?

A. That is correct.

Q. And is it correct that you did not attest to the reasonableness of BellSouth's capacity testing methodology?

A. That's correct in both counts. I think the helpful part of the report, though, is that it enables the reader to see both what the assumptions were, what the assumptions were based upon, and then what the level of testing was that was actually performed.

Q. Did you attest to BellSouth's definition of "oligopoly"?

CHAIRMAN GREER: I assume that's your last question.

Mr. O'Roark.

MR. O'ROARK: Thank you, Mr. Chairman.

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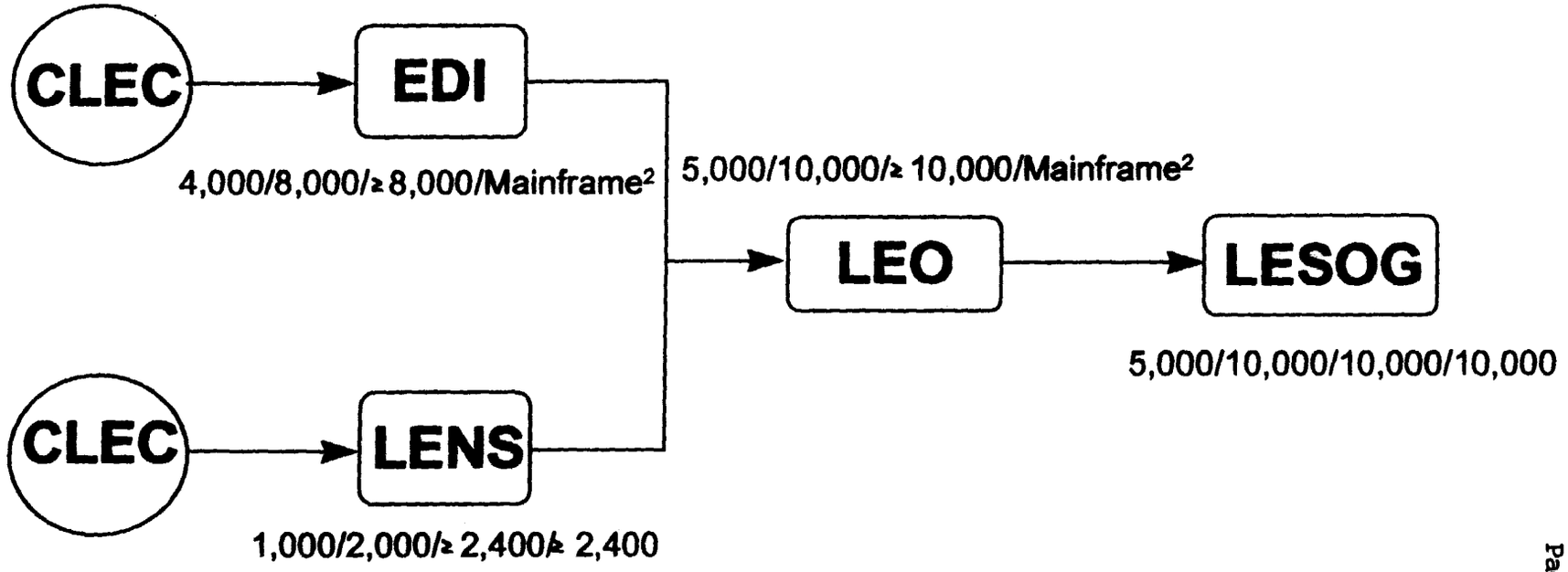
ATTACHMENT 48

Ordering Capacity

Daily ordering stated as *aa/bb/cc/dd*, where:
aa = Forecast by year-end 1997
bb = Designed capacity of each system[1]
cc = Capacity verified through internal volume testing
dd = Additional capacity available for rapid turn-up



[1]Assuming a 20-hour production day, which reflects system availability.

[2]Both EDI and LEO account for a small fraction of the currently used capacity on two BST mainframe systems. Significant excess capacity (35% to 40%) exists on both mainframes.

Exhibit WNS-43
Page 1 of 1

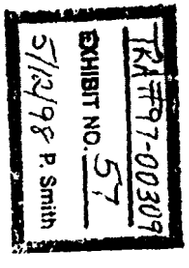
ATTACHMENT 49

BellSouth Telecommunications, Inc.
TN Docket 97-00309
AT&T's 1st Document Request
Item 11
Attachment

BellSouth
ENCORE Volume Test
Assessment

Prepared for

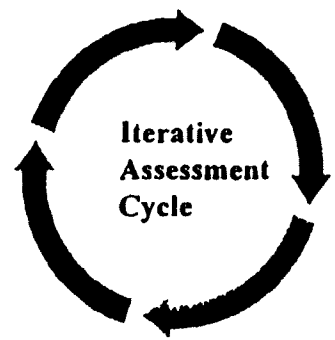
BELLSOUTH
TELECOMMUNICATIONS
By IBM Global Services
May, 1997



A structured approach was used to assess the BellSouth Volume Testing.

Assessment Work Flow

- Assessment Purpose
- Volume Test Objectives
- Volume Test Readiness Timeline
- Executive Summary
- Next Steps
- Detailed Findings, Analysis, Recommendations
  - Analysis of Approach
  - Data Collection an d Reporting
  - Potential use of Tools
- Best Practices Comparative Analysis
- Priority Findings and Recommendations



Assessment Purpose

The assessment provides an evaluation of the ENCORE volume testing that is being conducted by BellSouth. Note that this is a snapshot in time of a Volume Test under construction. Further review will be conducted as the construction evolves. Current review is as of May 15, 1997.

Purpose	To provide BellSouth with an independent audit of the ENCORE Volume Test. This effort is in support of the Federal Telecommunications Act mandating that incumbent Local Carriers (ILECs) provide access parity for Competitive Local Exchange Carriers (CLECs) to the ordering and pre-ordering Operational Support Systems (OSS).
Objectives	■ Audit Volume Test Approach ■ Provide input on data collection and reporting of test results ■ Evaluate the potential use of alternative tools to facilitate the testing approach
Out of Scope	■ Demonstrating that BellSouth Telecommunications legacy provisioning, billing, and maintenance systems can handle the increased volumes is not in the scope of this audit.

olume Test Objectives

BM is providing a phased audit with multiple checkpoints adapting to the Volume Test readiness chedule.

Volume Test Objectives	■	To demonstrate that the new Local Exchange Ordering and Pre-Ordering Gateway (ENCORE) can ■ handle the expected volume of input activity coming from the CLECs ■ manage the associated return messages going to the CLECs
Volume Test Scope	■	Demonstrating that BellSouth Telecommunication's legacy provisioning , billing, and maintenance systems (SOCs and the downstream systems) can handle the increased volumes is not an objective of this test.
'olume Test Results to tegulatory Agencies	■	Results from the Volume Test will be shared with the Department of Justice and the State Regulatory Commissions as required to demonstrate BellSouth Telecommunications' ability to support local competition.

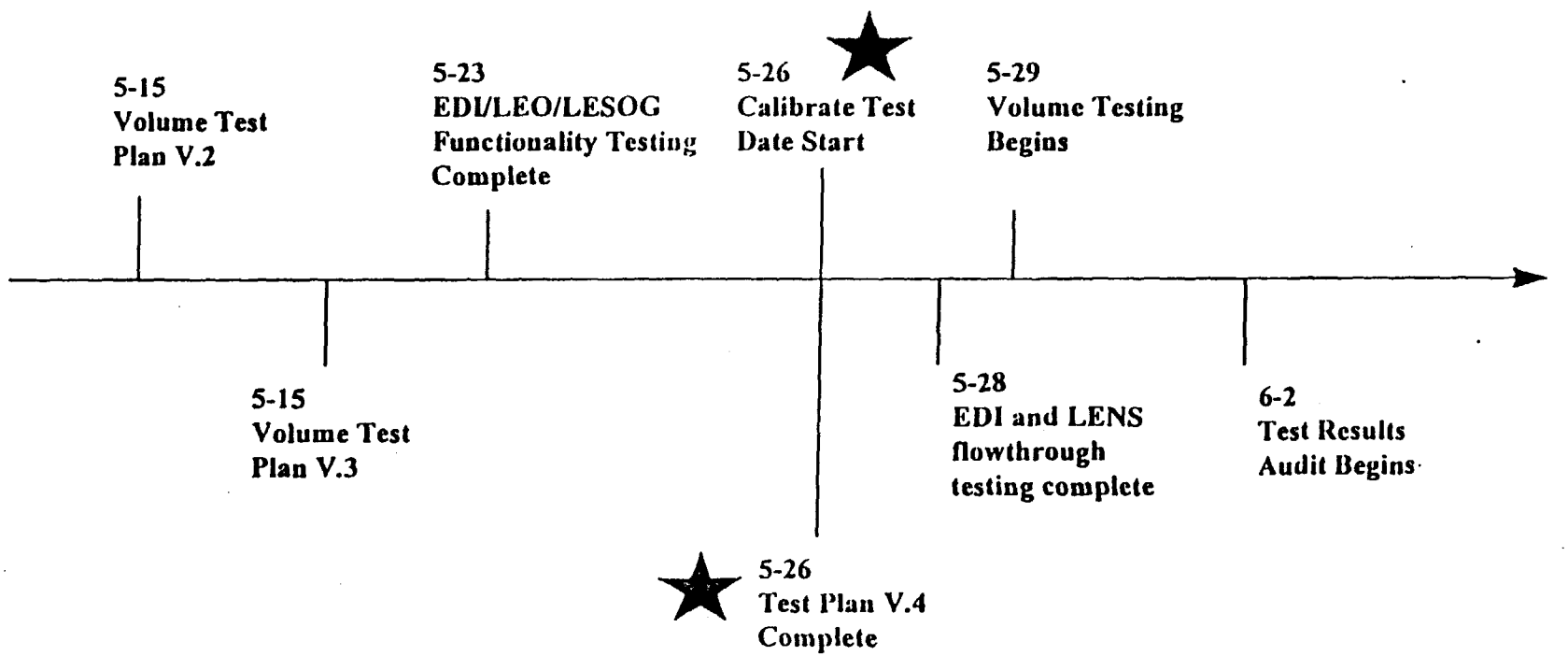
Assessment Executive Summary

The Test Plan is progressing with an anticipated shift in the Volume Test schedule. The critical dependencies of ENCORE product functionality and the stability of the test environment are maturing, but not in place for Volume Testing success.

Recommended Actions

Volume Test Readiness

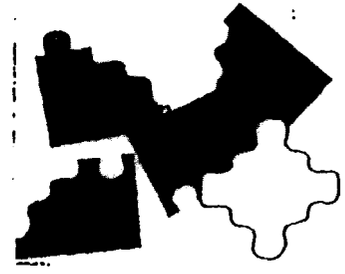
ENCORE Volume Test Planned Schedule Time Stamped 5-15-97



Assessment Executive Summary

The Test Approach is in the construction phase. With the anticipated refinements, it appears adequate. The data gathering process, data points, and report layout are in the Design phase, and appear to be acceptable. Given the schedule constraints, alternative tools are not recommended at this time.

Assessment Objectives	Conclusions
Auditing the Test Approach	The Test Approach is Construction phase and with refinement it appears adequate. It is recommended that Test Plan, Test scenarios, test scripts be augmented to provide adequate test coverage for representative ENCORE transactions, order mix, access methods, and order flows.
Input on Data Collection and Reporting of Test Results	The data gathering process, data points, and report layouts are in the Design phase. and appear to be acceptable to produce appropriate analytical results.
Evaluate the potential use of Alternative Tools to Facilitate the Test Approach	The current tools in use appear adequate for the near term Volume Test. Given the constrained schedule, it is not prudent to introduce a new tool at present. However, there does appear to be an opportunity to examine closer the use of scripting tools and Web capture and playback tools to facilitate ongoing Volume Testing.



Validate assumptions, and augment the Test Scenarios and Test Plan for completeness.

Specific Actionable Details are captured on pages 13 thru 52.

Summary of Critical Recommended Actions

Test Scenarios

Owner- Volume Test

- **Document and review the test scenarios, scripts, and execution procedures.**
- **Ensure the scripts provide test coverage for representative EDI/LENS transactions (type, peaking, order rates), order mix (EDI/LENS),access methods (Dial - In, LAN-LAN, FAX, and Internet) transaction flows.**

Test Plan

Owner- Volume Test

- **Finalize and validate Test Objectives, Scope, Assumptions, and Test Plan.**
- **Revise the testing schedule to reflect ENCORE system readiness.**
- **Incorporate LENS Volume Testing with overall Test Plan.**

Assessment Executive Summary

Construction of the data gathering process and results reporting is on track. As the test environment stabilizes, continue to monitor and track that the production and test environments demonstrate equivalency.

Specific Actionable Details are captured on pages 13 thru 52.

Summary of Critical Recommended Actions

Volume Test Metrics

Owner- Volume Test

- **Summarize the reporting and tracking of defects, and record defects fixed.**
- **Document the test results approach including data points, collection methods, and report layouts.**
- **Formalize the tracking of testing results and record when test objectives are met or exceeded.**

Test Environment

Owner- Volume Test

- **Verify that the production and test environments are operationally equivalent.**
- **Ensure the LESOG host capacity is improved.**
- **Validate the the WebLoad tool can simulate enough users to generate the required load.**

Owner- ENCORE Program

- **Ensure that the Volume Test environment changes are communicated to ensure that the Volume Test schedule and performance are not compromised.**

Assessment Executive Summary

While not in critical path for the current Volume Test, Library Control and Test Environment enhancements are recommended for improved resource utilization.

Specific Actionable Details are captured on pages 13 thru 52.

Summary of Best Processes for Efficiency

Library Control

Owner- ENCORE Program

- **Identify an ENCORE Release Manager.**
- **Use a common Release Management tool.**
- **Introduce a common configuration tool.**
- **Monitor code changes for each build / release.**
- **Re-run the system test bucket prior to Volume Test exit.**

Library Control

Owner- Volume Test

- **Establish backout procedures for fixes that do not pass the Volume regression testing.**
- **Monitor the stability and reliability of LENS code to enable LENS Volume Test progress.**
- **Institute build / release control of ENCORE code, allowing only approved fixes for known defects to be incorporated into the test and production environments.**

Continue due diligence in resolving ENCORE severity code conditions and implementing upgrades to Project Management methods and procedures.

Specific Actionable Details are captured on pages 13 thru 52.

Summary of Best Processes for Efficiencies

Problem Tracking

Owner- ENCORE Program

- Gain commitment for prioritization and resolution of ENCORE severity 1s and 2s.
- Integrate Volume Test Problem Management with ENCORE Problem Management.
- Finalize problem reporting processes.
- Record and report all defects

Project Management

Owner- Volume Test

- Identify additional risks and mitigation plans.

Owner- ENCORE Program

- Deploy an escalation and resolution process for Volume Test defects, issues and risks.
- Prioritize defects and issues to support the management decision making processes.
- Integrate the Project Management processes with the overall ENCORE processes.

Plan, Do, Check and Act. Revise the Test Plan, continue the trial test runs, check the results, execute the test and audit the results. Repeat the process again for ongoing Volume capabilities as new code is promoted.

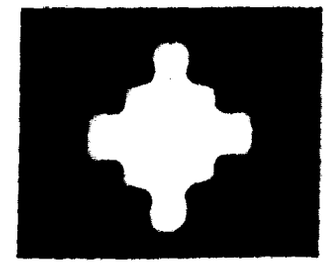
Next Steps

May 23

- Revise the Test Plan to incorporate recommended actions
- Validate production and test environments are operationally equivalent
- Schedule a Systems Regression Test
- Calibrate Test Schedule
- Execute the Volume Test
- Audit the Results

June 15

- Begin transition plans for evaluating ongoing Volume Testing and results reporting



Assessment Work Flow Continued.....

- Detailed Findings, Analysis, Recommendations
  - Analysis of Approach
  - Data Collection and Reporting
  - Potential use of Tools
- Best Practices Comparative Analysis
- Priority Findings and Recommendations

Assumptions are taken directly from the Test Plan and work sessions, version 5-15-97.

No Action Required

Assumption- General

1. **To demonstrate that the test environment with Georgia data only is acceptable.**

Comments

- Multiple access paths to varying hosts and data resources will not emulated production within all Areas Codes and Prefixes.
- All processing calls will be made to a single suite of databases, resources and network paths therefore this may represent an inordinate degradation of response and flowthrough timing conditions. This degradation should overcompensate for the lack of multiple Area Codes and Prefixes for the purposes of a Volume Test.
- Georgia data represents the largest and most complex of the data architectures. As a result, any functional edits and database organizations unique to each Area Code and Prefix should be adequately represented.

Recommended Action

- None

Approval Limits

- Acceptable

Risk

- Low

Assumption- General

2. Processing of an order can be discontinued once the order passes the SOER edits in SOCS and a FOC is returned.

Comments

- The implication is that the downstream flowthrough is equivalent and there is no volume concerns exist.

Recommended Action

- Validate that there is a volume equivalency relative to downstream flowthrough .
- Validate what is currently occurring with production processing of CLEC orders.

Approval Limits

- Conditional, with validation actions.

Risk

- Low

Assumption- General

3. Producing processing documentation for two 10-hour days will be acceptable.

Comments

- The current plan is to execute the Volume test scenarios on day 1. Day 2 will be for reviewing the results, scrubbing the databases, and reorganizing the SOCS database (similar to production).
- There has been discussion that the WebLoad tool may not be able to simulate enough users to generate the required load.

Recommended Action

- Define the number of concurrent sessions every day
- If consecutive days are not going to be the plan, then dependencies should be put in place:
  - No code promotions
  - Scripts are pre-built
  - EDI orders in queue to VAN will be invoked using a pre-defined run schedule
  - LENS will exercise the Volume Simulator
  - Validate that the WebLoad tool is capable of generating the required load.

Approval Limits

- Conditional, with recommended actions

Risk

- Medium

Assumption- General

4. A day's traffic should consist of at least 5000 orders with associated FOCs, 10,000 LENS pre-order sessions that do not result in an order, and 5,000 independently-simulated completion notices.

Comments

- There is assumed a 5% error rate. Additionally, the hour between 5-6 PM will not have a full compliment of orders and completions processing. These conditions will detract from the anticipated counts of 5,000 orders and FOCs. The plan is to introduce a 'pre-set' process to add an appropriate amount of transactions to meet or exceed the objective counts.
- LESOG currently is demonstrating a capacity processing 500 orders per hour. The anticipated volume is 500 orders per hour. An additional host is expected to resolve the issue.

Recommended Action

- Include Inquiry in the transaction mix.
- Define the 'pre-set process' to reach objective counts.
- Install an additional LESOG host to improve capacity of order volume.

Approval Limits

- Conditional, with recommended actions

Risk

- Medium

Assumption- General

5. **Response times in LENS should be captured, but benchmarking of LENS against equivalent BST systems is outside the scope of this demo and is being performed as a separate effort.**

Comments

- Overall order and pre-order volumes are targeted to be captured. The overall associated processing times will be tracked and examined. Therefore, while this would supportive information, it is unnecessary given the proposed data collection method and data points.

Recommended Action

- None

Approval Limits

- Approved

Risk

- Low

Assumption - Orders

1. **During one hour, 1,000 EDI and LENS orders should be input to emulate a peak busy hour where 20% of the orders come in. The rest of the orders should be spread across the remaining 9 hours.**

Comments

- The 20% assumption is being validated.
- Validate assumption as to why only 1 peak busy hour, specify the hour

Recommended Action

- Validate 20% order processing for busy hour(s)
- Validate only 1 peak busy hour and hour

Approval Limits

- Conditional, pending validation

Risk

- Low